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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,231	09/10/2003	Tsukasa Hashino	450100-04755	3477

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FROMMER LAWRENCE & HAUG LLP
745 FIFTH AVENUE
NEW YORK, NY 10151

EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2621

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/659,231	Applicant(s) HASHINO ET AL.	
	Examiner Andy S. Rao	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/9/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Meeker.

Meeker discloses method for encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels (Meeker: column 6, lines 1-20), said method comprising steps of: generating a sum signal and a difference signal of images for every two frames (Meeker: figure 8, elements 118 and 130); deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal (Meeker: column 18, lines 45-55); and encoding the sum signal and the difference signal respectively based on the encoding bit rate (Meeker: column 20, lines 15-40), as in claim 1.

Regarding claim 2, Meeker discloses wherein the step of deciding generates a control signal to be used for the encoding, the control signal representing a proportion of the encoding

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bit rate for the sum signal and the different signal (Meeker: column 21, lines 15-25), as in the claim.

Regarding claim 3, Meeker discloses wherein the step of deciding decides the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the different signal (Meeker: column 21, lines 35-42), as in the claim.

Regarding claim 4, Meeker discloses wherein said step of encoding performs the encoding on any one of the sum signal and the different signal and then performs the encoding on the other signal (Meeker: column 20, lines 20-35), as in the claim.

Regarding claim 5, Meeker discloses wherein the step of deciding decides the encoding bit rate on the basis of a proportion of a data quantity generated by encoding the sum signal and a data quantity generated by encoding the different signal (Meeker: column 20, lines 10-20), as in the claim.

Regarding claim 6, Meeker discloses a step of adjusting a level of any one of the sum signal and the different signal (Meeker: column 18, lines 55-65), as in the claim.

Meeker discloses an apparatus for encoding a moving video signal comprising a plurality of images, each image having a plurality of pixels (Meeker: figure 8), said apparatus comprising: a generating element for generating a sum signal and a difference signal of images for every two frames (Meeker: figure 8, elements 118 and 130); a deciding element for deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal (Meeker: column 18, lines 45-55); and an encoding element for encoding the sum signal

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and the difference signal respectively based on the encoding bit rate (Meeker: column 20, lines 15-40), as in claim 7.

Regarding claim 8, Meeker discloses wherein the deciding element generates a control signal to be used for the encoding element, the control signal representing a proportion of the encoding bit rate for the sum signal and the different signal (Meeker: column 21, lines 15-25), as in the claim.

Regarding claim 9, Meeker discloses wherein the deciding element decides the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the different signal (Meeker: column 21, lines 35-42), as in the claim.

Regarding claim 10, Meeker discloses wherein said encoding element performs the encoding on any one of the sum signal and the different signal and then performs the encoding on the other signal (Meeker: column 20, lines 20-35), as in the claim.

Regarding claim 11, Meeker discloses wherein the deciding element decides the encoding bit rate on the basis of a proportion of a data quantity generated by encoding the sum signal and a data quantity generated by encoding the different signal (Meeker: column 20, lines 10-20), as in the claim.

Regarding claim 12, Meeker discloses further comprising an adjustment element for adjusting a level of any one of the sum signal and the different signal (Meeker: column 18, lines 55-65), as in the claim .

Meeker discloses a computer program operable by a computer, the program comprising instruction data to be carried out by the computer (Meeker: column 20, lines 1-5), the instruction

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data comprising: data to instruct generating a sum signal and a difference signal of images for every two frames (Meeker: figure 8, elements 118 and 130); data to instruct deciding an encoding bit rate for the sum signal and the difference signal based on the sum signal and the difference signal (Meeker: column 18, lines 45-55); and data to instruct encoding the sum signal and the difference signal respectively based on the encoding bit rate (Meeker: column 20, lines 15-40), as in claim 13.

Regarding claim 14, Meeker discloses wherein the data to instruct deciding includes generating a control signal to be used for the encoding, the control signal representing a proportion of the encoding bit rate for the sum signal and the different signal (Meeker: column 21, lines 15-25), as in the claim.

Regarding claim 15, Meeker discloses wherein the data to instruct deciding includes deciding the encoding bit rate on the basis of a variation in signal level of each pixel of the sum signal and a variation in signal level of each pixel of the different signal (Meeker: column 21, lines 35-42), as in the claim.

Regarding claim 16, Meeker discloses wherein said data to instruct the encoding instructs encoding any one of the sum signal and the different signal and then instructs encoding the other signal (Meeker: column 20, lines 20-35), as in the claim..

Regarding claim 17, Meeker discloses wherein the data to instruct deciding includes deciding the encoding bit rate on the basis of a proportion of a data quantity generated by encoding the sum signal and a data quantity generated by encoding the different signal (Meeker: column 20, lines 10-20), as in the claim.

Regarding claim 18, Meeker further discloses using data to adjust a level of any one of the sum signal and the different signal (Meeker: column 18, lines 55-65), as in the claim.

Meeker discloses a method for decoding (Meeker: column 7, lines 20-55) encoded data by encoding a moving video signal comprising a plurality of images (Meeker: column 6, lines 1-20), each image having a plurality of pixels, the encoded data comprising an encoded sum signal generated by encoding a sum signal of images and an encoded different signal generated by encoding a different signal of images (Meeker: figure 8, element 118 and 130), the sum signal and the difference signal of images being generated for every two frames (Meeker: column 9, lines 30-40), the method comprising steps of: decoding the encoded data to generate a decoded sum signal and a decoded different signal (Meeker: figure 8, element 144 and 138); generating two-frame images using the decoded sum signal and the decoded different signal (Meeker: figure 8, element 146); and outputting the two-frame images in a prescribed order to generate a decoded moving video signal (Meeker: figure 8, element 152), as in claim 19.

Meeker discloses apparatus for decoding (Meeker: figure 8) encoded data by encoding a moving video signal comprising a plurality of images (Meeker: column 6, lines 1-20), each image having a plurality of pixels, the encoded data comprising an encoded sum signal generated by encoding a sum signal of images and an encoded different signal generated by encoding a different signal of images (Meeker: figure 8, element 118 and 130), the sum signal and difference signal of images being generated for every two frames (Meeker: column 9, lines 30-40), the apparatus comprising: an element for decoding the encoded data to generate a decoded sum signal and a decoded different signal (Meeker: figure 8, elements 144 and 138); an element for generating two-frame images using the decoded sum signal and the decoded different signal

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(Meeker: figure 8, element 146); and an element for outputting the two-frame images in a prescribed order to generate a decoded moving video signal (Meeker: figure 8, element 152), as in claim 20..

Meeker discloses a computer program operable by a computer (Meeker: column 20, lines 1-5), the program comprising instruction data to be carried out by the computer, the instruction data including decoding (Meeker: column 7, lines 20-50) encoded data by encoding a moving video signal comprising a plurality of images (Meeker: column 6, lines 1-20), each image having a plurality of pixels, the encoded data comprising an encoded sum signal generated by encoding a sum signal of images and an encoded different data generated by encoding a different signal of images (Meeker: column 9, lines 30-40), the sum signal and difference signal of images being generated for every two frames, the instruction data further comprising: data to instruct decoding the encoded data to generate a decoded sum signal and a decoded different signal (Meeker: figure 8, elements 144 and 138); data to instruct generating two-frame images using the decoded sum signal and the decoded different signal (Meeker: figure 8, element 146); and data to instruct outputting the two-frame images in a prescribed order to generate a decoded moving video signal (Meeker: figure 8, element 152), as in claim 21).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Suzuki discloses a TV signal codec with amplitude limitation. Hayes discloses an automatic gain and level control circuit and method. Johnston discloses an adaptive leak HDTV encoder. Kato discloses motion video coding with adaptive precision for DC coefficient

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quantization and variable length coding. Hirabayashi discloses a coding method for coding pixel blocks and apparatus.

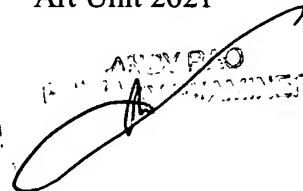
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
January 12, 2007

A handwritten signature in black ink, appearing to read "ANDY S. RAO", is written over a circular official stamp. The stamp contains the text "ANDY S. RAO" and "Primary Examiner" in a circular arrangement, with some additional text at the bottom that is partially obscured by the signature.